Building capacity for change: A key challenge for the delivery of water sensitive cities

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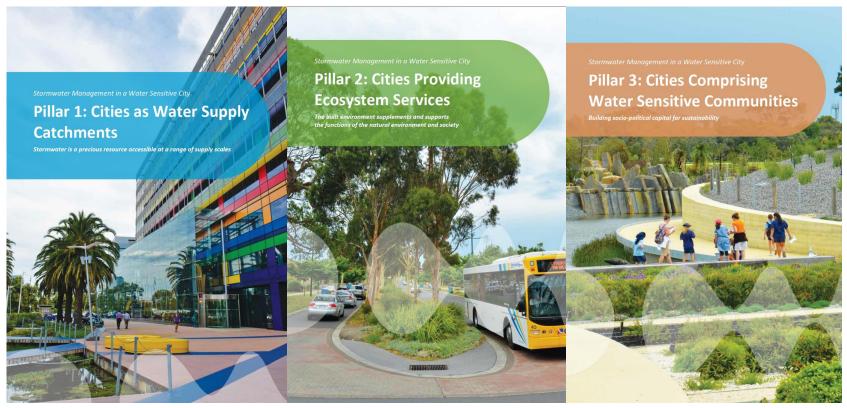
A Water Sensitive City is



Liveable + Resilient + Sustainable + Productive



Three Pillars of a WSC

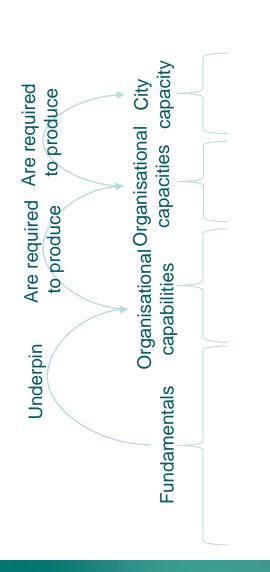


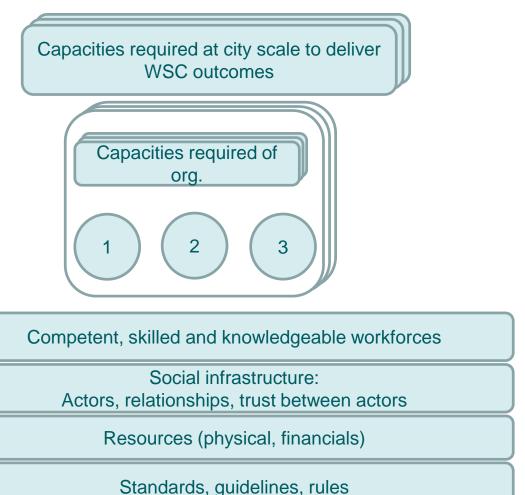
Serves as a potential water supply catchment, providing a range of different water sources at a range of different scales, and for a range of different uses.

Provides a healthy natural environment, thereby offering a range of social, ecological, and economic benefits.

Consists of water sensitive communities where citizens are actively engaged in decision-making, and demonstrate positive behaviours.

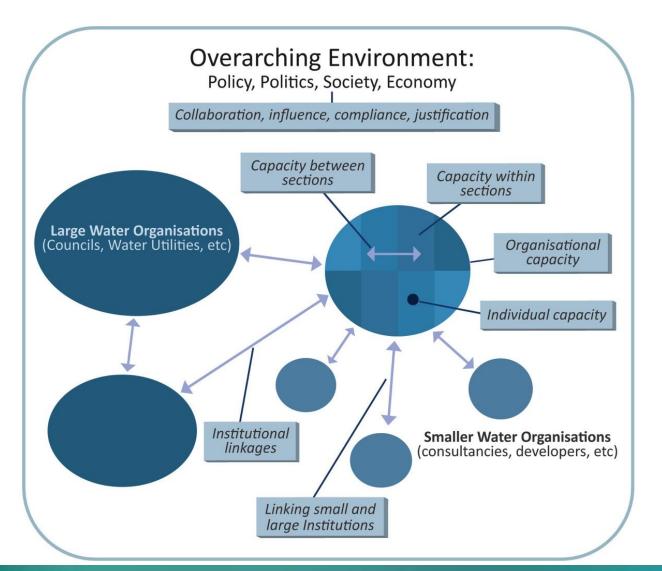






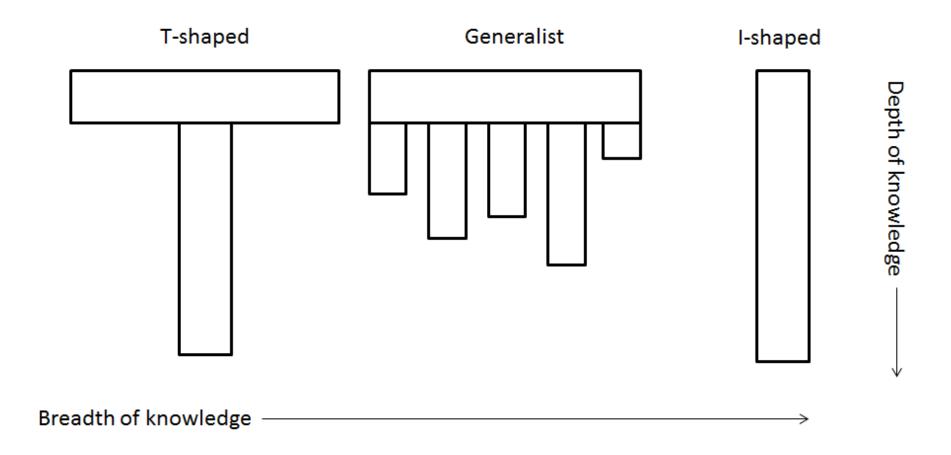


Challenge #2 – Building capacity to collaborate



Australian and international assessment, Melbourne, Australia Sensitive Cities skills and knowledge needs An Pathirana, A., Veerbeek, W. and Wegener, P. Cooperative Research Centre for Water Sensitive Cities (2015) Water McIntosh, B.,

Challenge #3: What kind of people do we need?



Source: McIntosh, B.S. & Taylor, A. (2013), Developing T-shaped water professionals, Water Policy v15

Challenge #3: What kind of people do we need?

Effective 'water leaders'

(there are different types of leaders)

Leader attributes

- Skills / behaviours
- Knowledge and experience
- Personality traits (e.g. values, characteristics)
- Forms of power
- Social networks, etc



context

A leader's context

- Dynamic complex challenges / wicked problems
- Resources
- Support from others (including other leaders)
- Drivers for change (e.g. crises)
- Supportive organisational cultures
- Legislative and policy frameworks, etc.

Capacity building activities by the International WaterCentre (e.g. education, training, problem based learning, coaching, mentoring, etc.)

Collaborative, inter-disciplinary problem construction and solution generation

UNDERSTANDING

(understanding technical issues and fundamental principles, technical problem solving, designing and researching)

For example, modules in:

- 'Science of water'
- 'Catchment and aquatic ecosystem health'
- 'Water supply and sanitation'
- 'Water, sustainability and development' etc.

ORGANISING

(planning, budgeting, organising and solving multi-dimensional problems) For example, modules in:

- 'Project management'
- 'Water planning and economics'
- 'Community development and capacity building for integrated water management'
- 'Water governance and policy' etc.

INFLUENCING

(establishing direction, aligning resources, motivating and inspiring people)

For example, developmental activities focusing on the following skills:

- Strategically exercising influence
- Using leadership styles that suit the context
- Leading cross-boundary teams
- Advanced social networking
- Building shared visions for projects, etc



Challenge #4: Developing different types of knowledge

Know-what

Know-why

Know-how

Refers to knowing the activities or elements that are required to complete a task. Examples:

- Knowing what needs to be considered when making a business case for a WSC project.
- Knowing the processes required to recycle wastewater to drinking standards.



Challenge #4: Developing different types of knowledge

Know-what

Know-why

Know-how

Implies an ability to articulate a causal and conceptual understanding of why something works or happens. Examples:

- Why and how pollutants are removed by bioretention systems
- Why and how urban heat island effects can be mitigated by green infrastructure
- Why and how people perceive different streetscape aesthetics



Challenge #4: Developing different types of knowledge

Know-what

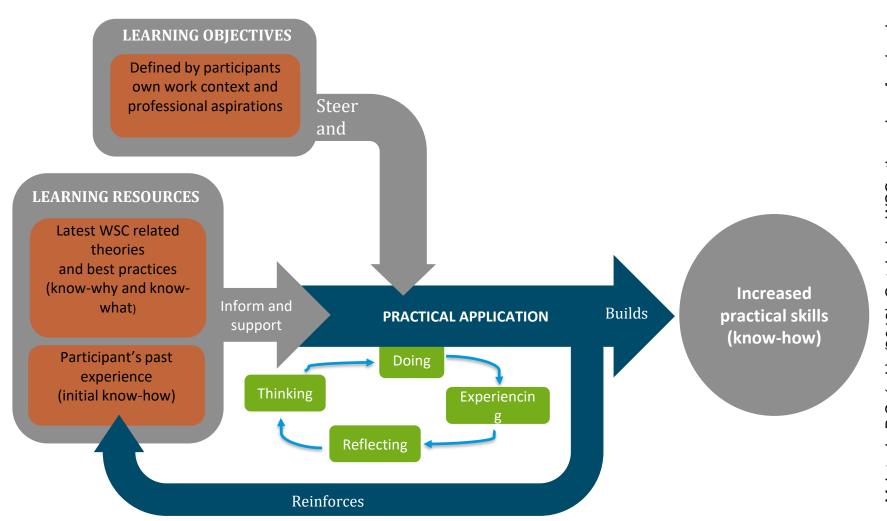
Know-why

Know-how

Implies the physical ability to produce some action and achieve some outputs and outcomes. This is captured in routines, techniques and tools. Examples:

- Undertake an economical assessment of a WSC project.
- Design a water quality monitoring scheme.
- Implement a community engagement strategy.

Challenge #4: Choosing and using effective learning models



earning: design and delivery recommendations. Melbourne, Australia: B.S. (ed.). (2018). Catalysing WSCs through professional Sooperative Research Centre for Water Sensitive McIntosh,